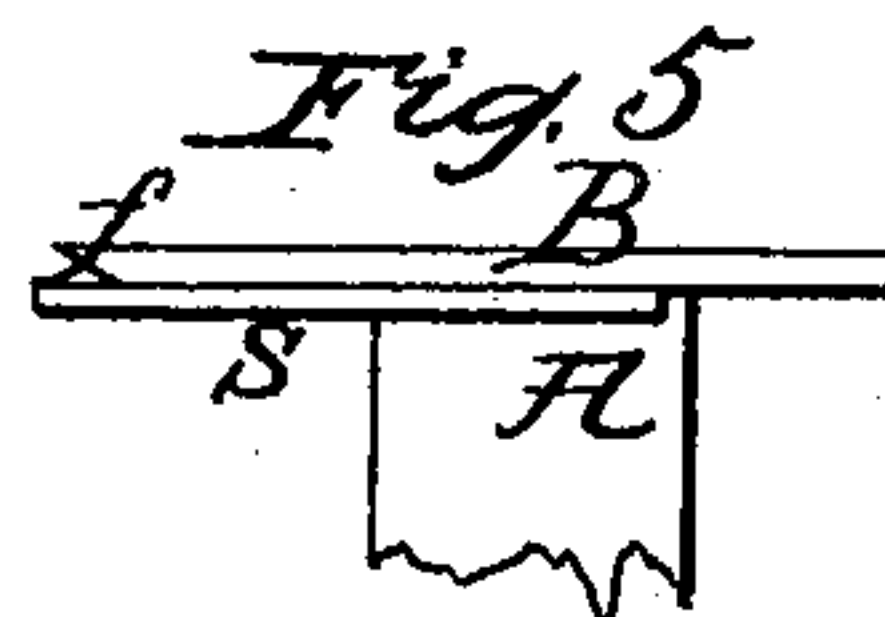
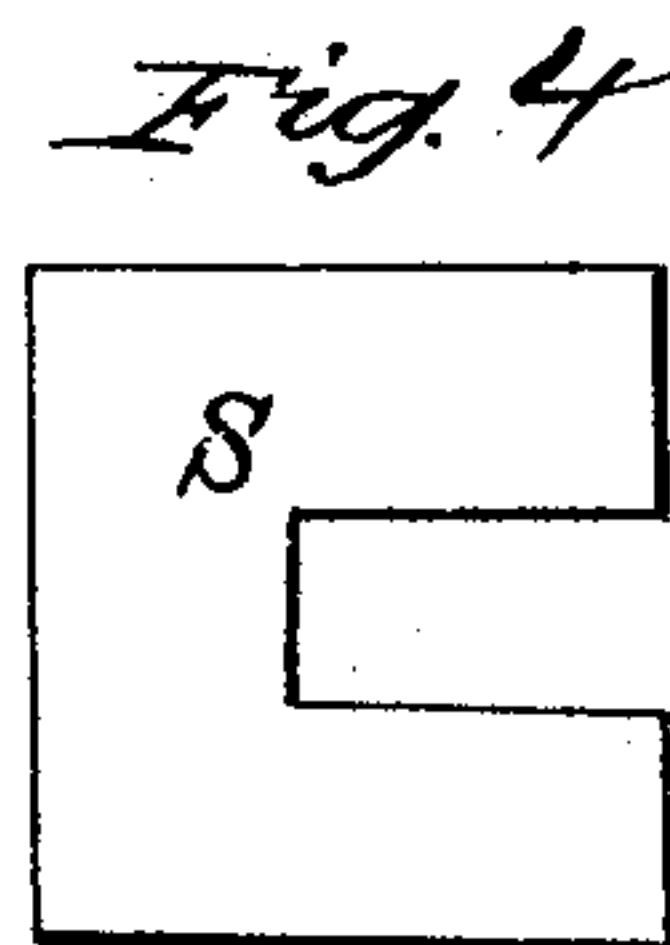
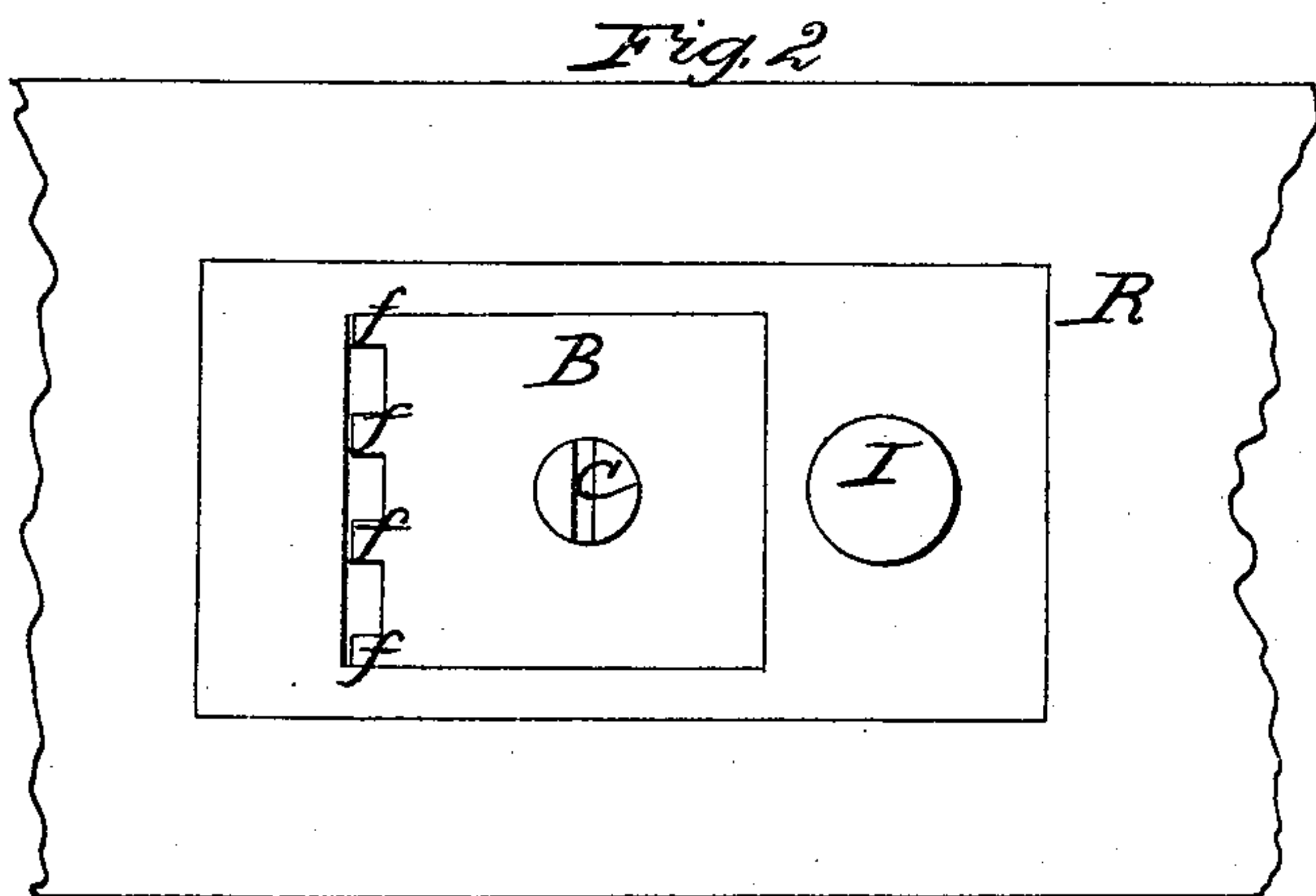
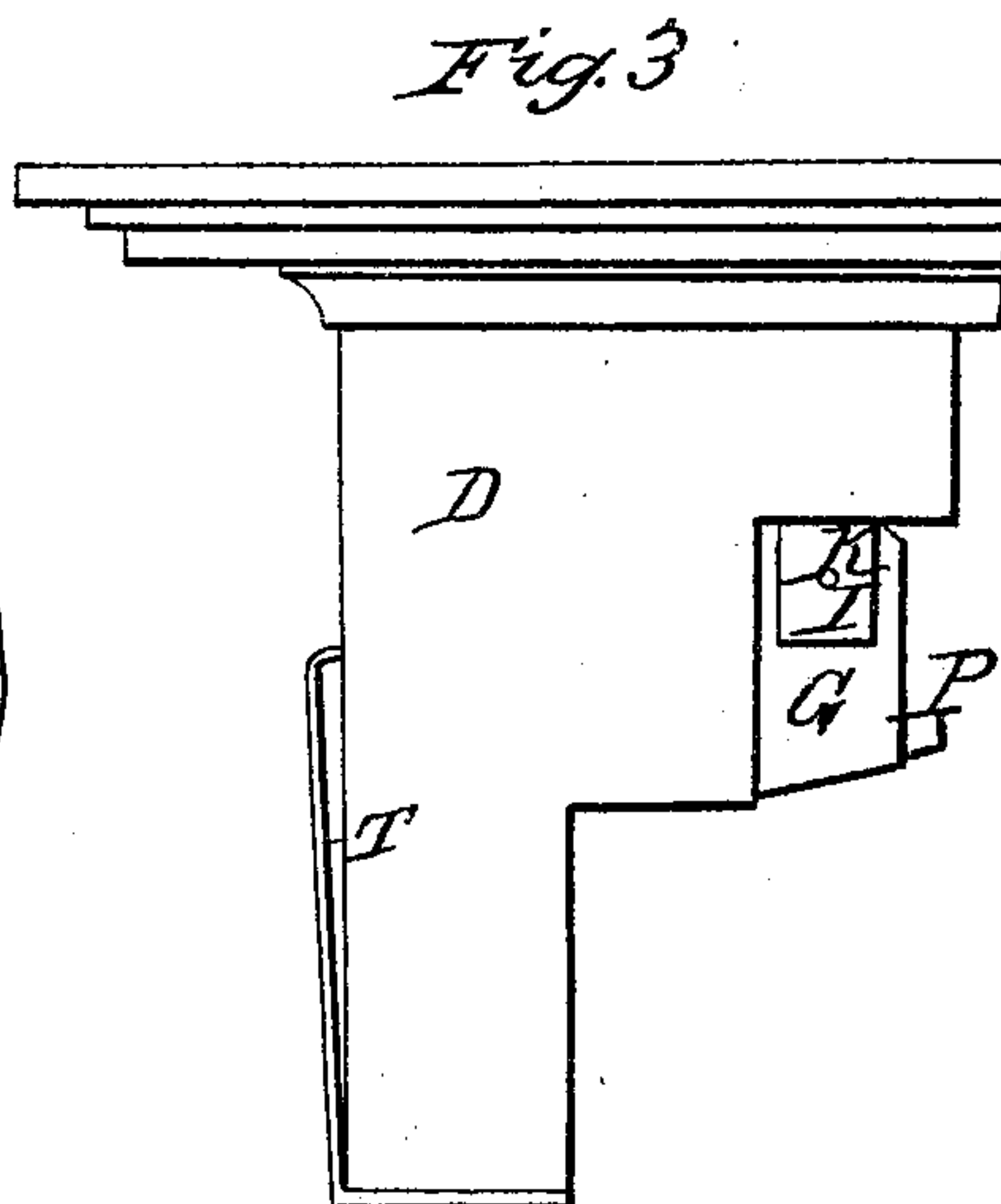
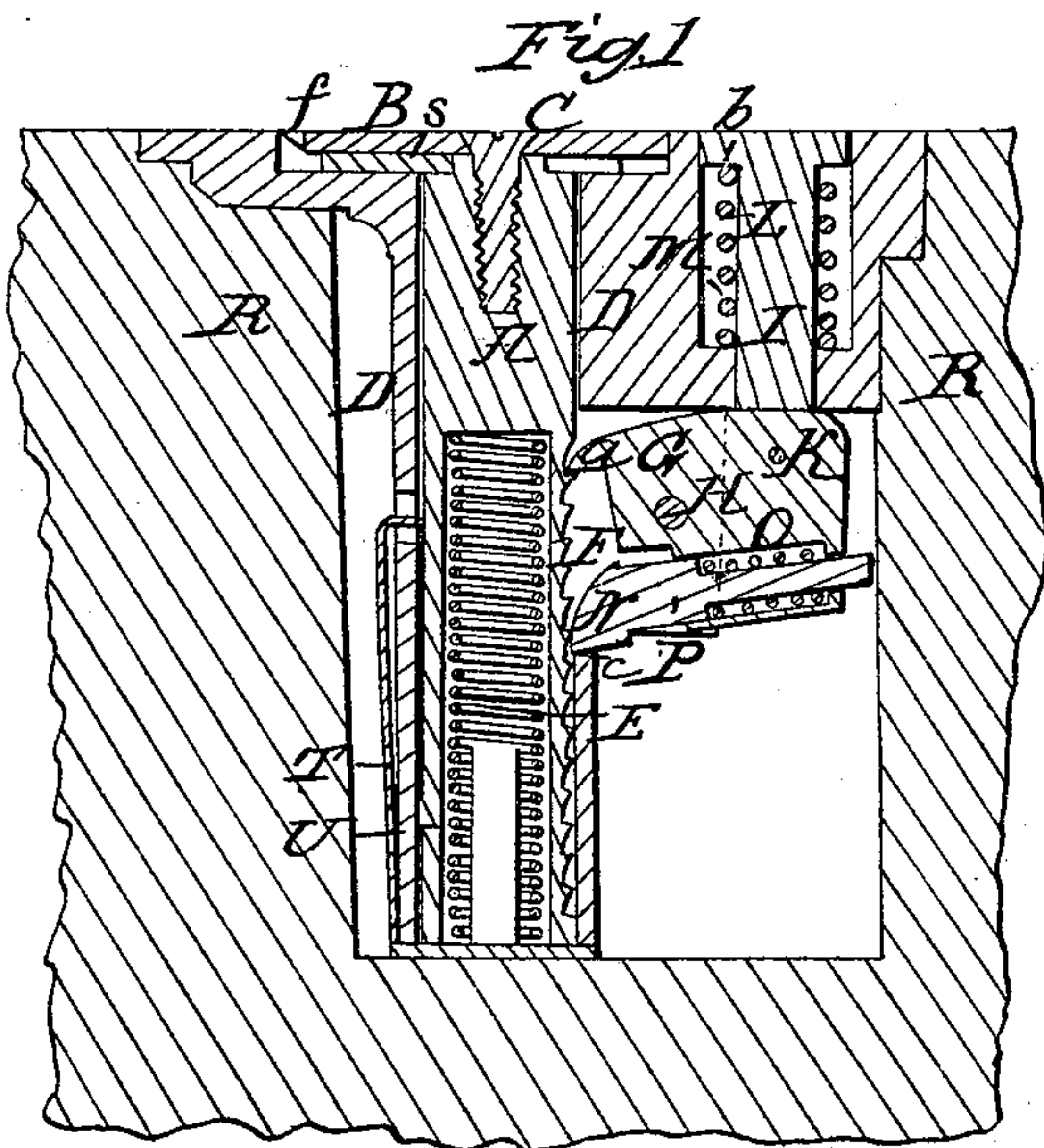


*J. H. Spiller,*

*Bench Dog.*

*N<sup>o</sup> 13,016.*

*Patented June 5, 1855.*





# UNITED STATES PATENT OFFICE.

JOSEPH D. SPILLER, OF CONCORD, NEW HAMPSHIRE.

## BENCH-REST.

Specification of Letters Patent No. 13,016, dated June 5, 1855.

*To all whom it may concern:*

Be it known that I, JOSEPH D. SPILLER, of Concord, in the county of Merrimack and State of New Hampshire, have invented an Improved Bench-Rest; and I do hereby declare that the same is fully described and represented in the following specification and the accompanying drawings, letters, figures, and references thereof.

Of the said drawings, Figure 1, denotes a vertical and longitudinal section of my said invention as applied to a joiner's bench; Fig. 2, is a top view of it; Fig. 3, is a side elevation of it as removed from the bench; Fig. 4, is a top view of its plain side to be hereinafter described.

In these drawings, A, is a metallic bar furnished with a serrated flat head B, confined to it by means of a screw. This bar with its head I term the bench rest. It is made to slide freely up and down within a socket or case D, provided with a spring E, which is disposed within a chamber formed within the rest A, and not only bears at its upper end against the throat of the chamber, but at its lower end in the bottom of the case D. This spring operates to elevate the bench rest at suitable times.

On one side of the bench rest a rack of teeth is formed as seen at F. In connection with such rack, a rocker or lever catch G, works such catch turning upon a fulcrum or pin H, and being jointed to a thumb slide I, (as seen at K) which plays vertically in the case or frame D, and is forced upward by a helical spring L, which encircles it and is arranged in a cylindrical chamber M, made down in the frame D.

The rocker catch is provided with a cylindrical escapement or cam plate N, which is arranged and applied to it as seen in Fig. 1, it being forced forward toward and against the toothed rack by means of a helical spring O, which envelopes its shank P.

When the upper surface of one of the teeth of the rack is bearing against the tooth *a*, of the latch G, not only should the cam or curved front part of the escapement pallet N, rest against the angular corner of one of the teeth of the rack but the lower edge or part *c*, of the said pallet should be a short distance below the corner of the next tooth below. Under such a state of things if the thumb slide I, is pressed downward, the catch G will be turned on its fulcrum H, so as to move its tooth *a*, out of action

with the rack tooth, and the bench rest will rise upward by the action of the spring E. At the same time the pallet N, will be borne against the bench rest and will catch against the next tooth below it (the pallet) and arrest the upward movement of the said rest. While the thumb slide I, is rising upward, the pallet should hold the rest stationary until the tooth *a*, has moved a short distance upon and into action with a tooth of the rack. The lever catch continuing to move so as to carry the tooth *a* farther upon the rack tooth will cause the cam part of the escapement pulley N, to be borne against the rack to such degree as to move the lower part *c*, entirely away from the tooth just previously resting against it.

By successive downward movements of the thumb slide I, the bench rest may be elevated so as to move its serrated top B, to such height above the top surface of the bench R, as may be desired, an intermittent rectilinear movement being thus imparted to the bench rest.

The top B, of the rest is provided with wedge teeth (*f, f, f*) for the purpose of seizing the end of a board or piece of wood when borne against it and of preventing such board or piece of wood from moving laterally or upward while it is being planed. As it is often desirable to use a bench rest made without teeth, the upper part of the rest A, may be provided with a plain slide or plate S, which may be arranged directly underneath the serrated part B, and formed so as not only to be capable of being arranged with respect to the part B, as seen in Fig. 1, but of being moved forward into a position with respect to such part as exhibited in Fig. 5, in which the front edge of the plate S (such front edge being square to its top surface and not provided with teeth) is represented as projecting in front of and beyond the teeth of the plate B. I apply the plate S, to the rest A, in such manner as to enable it to be fastened in position by the plate B, when forced down upon it by the screw C.

By pressing down the thumb slide I, so as to move the tooth *a*, out of action with the rack and at the same time pressing down upon the bench rest said rest can be moved downward so as to carry its top into the same plane with the top of the bench.

The case of the rest A, is provided with a spring rest T, which when the rest has

risen to its highest elevation catches into an angular notch U, (formed in the front side of the rest) and prevents the said rest from being further moved upward.

5 In a bench rest constructed and operated as above specified the head of the thumb slide is so arranged as to be very convenient of access for a workman at the bench, while at the same time it presents no inconvenient  
10 projection beyond the surface of the bench.

I claim—

1. Combining with a bench rest, mechanism substantially as described for not only elevating said rest with an intermittent ro-  
15 tary motion during successive pressure on a spring thumb slide applied to said bench

rest as set forth, but for enabling said bench rest to be moved downward whenever necessary, in manner and for the purpose as specified.

2. I also claim combining with the serrated top plate of the bench rest, a plain slide plate combined and made to operate therewith substantially in manner as specified.

In testimony whereof, I have hereunto set my signature this twenty seventh day of February A. D. 1855.

JOSEPH D. SPILLER.

Witnesses:

L. D. STEVENS,  
JOSIAH G. SPILLER.